

## CLAIMS

What is claimed is:

1. A method of producing a reduced data set event log comprising the acts of:

(a) monitoring an event log comprising examination and series data from a digital imaging device; and

5 (b) automatically copying portions of the examination and series data from the event log to produce the reduced data set event log.

2. The method of producing a reduced data set event log, as set forth in claim 1, wherein the event log is produced from a computed tomography (CT) device.

3. The method of producing a reduced data set event log, as set forth in claim 1, wherein the event log comprises a multi-threaded event log.

4. The method of producing a reduced data set event log, as set forth in claim 1, wherein act (b) comprises:

(a) providing a feature extractor module;

(b) analyzing the event log using the feature extractor module; and

15 (c) storing portions of the examination and series data in the reduced data set event log.

5. The method of producing a reduced data set event log, as set forth in claim 4, wherein the feature extractor module comprises a software algorithm.

6. The method of producing a reduced data set event log, as set forth in claim 4, wherein the feature extractor module comprises a Programmable Read Only Memory (PROM) device.

7. The method of producing a reduced data set event log, as set forth in claim 4, wherein the feature extractor module comprises a software routine.

8. The method of producing a reduced data set event log, as set forth in claim 4, wherein the feature extractor module comprises a state machine.

5 9. A method of interpreting an event log comprising the acts of:

(a) using a state machine to describe predetermined conditions;

(b) switching states of the state machine in response to the detection of the predetermined conditions; and

10 (c) producing a reduced data set event log based on the output of the state machine.

10. The method of interpreting an event log, as set forth in claim 9, comprising the acts of:

manually inspecting exemplary event logs comprising examination records and series records;

15 identifying a plurality of text-strings corresponding to the examination records and series records;

assigning a condition to each of the plurality of text-strings; and

using each of the conditions to define a state machine.

20 11. A method for defining conditions for producing a reduced data set event log comprising:

manually inspecting exemplary event logs comprising examination records and series records;

identifying a plurality of conditions corresponding to the examination records and series records; and

using each of the conditions to define a state machine.

12. The method for defining conditions, as set forth in claim 11, wherein the conditions are correlative to a plurality of recognizable text-strings.

13. A system for interpreting an event log comprising:

5 an input device configured to produce an event log, the event log comprising imaging data correlative to an image scan; and

a feature extractor module configured to receive the event log from the input device and further configured to produce a reduced data set event log.

10 14. The system for interpreting an event log, as set forth in claim 13, wherein the feature extractor module comprises a software algorithm.

15. The system for interpreting an event log, as set forth in claim 13, wherein the feature extractor module comprises a state machine.

16. The system for interpreting an event log, as set forth in claim 13, wherein the event log comprises a multi-threaded event log.

15 17. The system for interpreting an event log, as set forth in claim 13, wherein the input device comprises at least one of a computed tomography (CT) device, a magnetic resonance imaging (MRI) device, an x-ray system, and an ultrasound system.

20 18. A system for interpreting an event log comprising a computer comprising a feature extractor module, the module configured to receive an event log from an input device and further configured to produce a reduced data set event log.

19. A feature extractor module configured to receive an event log from an input device and further configured to produce a reduced data set event log.

20. The feature extractor module, as set forth in claim 19, comprising a software algorithm.

21. The feature extractor module, as set forth in claim 19, comprising a state machine.

22. The feature extractor module, as set forth in claim 19, wherein the event log comprises a multi-threaded event log.

5 23. The feature extractor module, as set forth in claim 19, wherein the input device is a computed tomography (CT) device.

24. A computer-readable medium storing computer instructions for:  
monitoring an event log comprising examination and series data from a digital imaging device; and

10 automatically copying portions of the examination and series data from the event log to produce a reduced data set event log.

25. The computer-readable medium, as set forth in claim 24, wherein the computer instructions for automatically copying comprises computer examinations for:

analyzing the event log, and

15 storing portions of the examination and series data in the reduced data set event log.

26. A tangible medium for storing a state machine comprising:

a routine for switching states of a state machine in response to the detection of the predetermined conditions; and

20 producing a reduced data set event log based on the output of the state machine.